



APPENDIX F

RE: U.S. Patent Application No. 08/961,956  
Applicant: Jose Sancho Royo, et al.  
Title: "Catalytic Systems . . ."  
Our Ref. No.: 616282-6/JP/B-3379

Please add new Claims 111-123, which are set forth below.

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Claim 111. A catalyst as claimed in Claim 56, wherein Q is selected from the group consisting of boron, carbon, germanium, tin, lead, and elements from group 16 of the periodic table.

Claim 112. A catalyst as claimed in Claim 56, wherein the metallocene complex is defined by the formula I.

63 Claim 113. A catalyst as claimed in Claim 56, wherein the metallocene complex is defined by the formula II.

Claim 114. A process as claimed in Claim 65, wherein step (b) yields the catalyst component; and wherein the process further comprises step (c):

contacting the catalyst component with the cocatalyst in a polymerization medium to yield the catalyst claimed in Claim 56.

Claim 115. A process as claimed in Claim 66, wherein step (c) yields the catalyst component; and wherein the process further comprises step (c):

contacting the catalyst component with the cocatalyst in a polymerization medium to yield the catalyst claimed in Claim 56.

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Claim 116. A process as claimed in Claim 95, wherein the monomer comprises ethylene.

Claim 117. A catalyst as claimed in Claim 56, wherein the R groups are equal to or different from each other; wherein each R is independently hydrogen or a radical containing from 1 to 20 carbon atoms; wherein each R optionally contains a heteroatom selected from the group consisting of boron and elements from groups 15 and 16 of the periodic table of the elements; wherein at least one R group in the formula I and at least one R group in the formula II contain the  $\text{OSiR}_3$  group; wherein each Q is selected from the group consisting of boron and elements of group 16 of the periodic table; and wherein  $m = 1$ .

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Claim 118. A catalyst as claimed in Claim 56, wherein the metallocene complex is defined by the formula II; and wherein  $m = 1$ .

Claim 119. A catalyst as claimed in Claim 56, wherein the metallocene complex is defined by the formula II; and wherein  $m = 2$ .

Claim 120. A catalyst as claimed in Claim 56, wherein the metallocene complex is defined by the formula II; and wherein  $m = 3$ .

Claim 121. A catalyst as claimed in Claim 56, wherein the reactive group on the surface of the support is a siloxane group; wherein the metallocene complex is supported on the support by means of a bond resulting from the reaction of the  $\text{OSiR}_3$  group of the metallocene complex with the siloxane group, whereby a bridge is formed between a silicon atom on the surface of the support and

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the cyclopentadienyl ring that optionally is fused with one or more other rings; wherein the bridge consists of oxygen and a hydrocarbon radical containing from 1 to 20 carbon atoms, wherein the hydrocarbon radical optionally contains one or more heteroatoms selected from the group consisting of boron, germanium, tin, lead, and elements from groups 15 and 16 of the periodic table of the elements.

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Claim 122. A catalyst as claimed in Claim 56, wherein the reactive group on the surface of the support is a siloxane group; wherein the metallocene complex is supported on the support by means of a bond resulting from the reaction of the  $\text{OSiR}''_3$  group of the metallocene complex with the siloxane group, whereby a bridge is formed between a silicon atom on the surface of the support and the cyclopentadienyl ring that optionally is fused with one or more other rings; wherein the bridge consists of oxygen and a linear  $\text{C}_1\text{-C}_{20}$  alkyl.

Claim 123. A catalyst as claimed in Claim 56, wherein a bridge is formed by the reaction of the  $\text{OSiR}''_3$  group of the metallocene complex with the reactive group on the surface of the support; wherein the bridge is formed between a silicon atom on the surface of the support and the cyclopentadienyl ring that optionally is fused with one or more other rings; wherein the bridge consists of oxygen and a hydrocarbon radical containing from 1 to 20 carbon atoms, wherein the hydrocarbon radical optionally contains one or more heteroatoms selected from the group consisting of boron, germanium, tin, lead, and elements from groups 15 and 16 of the periodic table of the elements; wherein if the metallocene complex is defined by the formula I, then the bridge optionally further consists of the  $\text{MX}_y$  group; and wherein if the metallocene complex

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*C<sub>3</sub>*  
*C<sub>3v</sub>* is defined by the formula II, then the bridge optionally further consists of the MX<sub>d</sub> group.

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